

Industrial Pretreatment Newsletter

Published for industrial dischargers by the King County Industrial Waste Program (KCIW)



King County

Department of
Natural Resources and Parks
Wastewater Treatment Division
Industrial Waste Program

Volume XXVII: Issue 1 Spring 2012

Mission Statement

The mission of the Industrial Waste Program is to protect the environment, public health, biosolids quality, and King County's regional sewerage systems. We work cooperatively with our customers as we regulate industrial discharges, provide technical assistance, and monitor the regional sewerage system.

2011 KCIW Rewards and Recognition Program

(Awarded in 2012 and listed here throughout that year)

2011 EnvirOvation Award

Pepsi Beverage Co. - Seattle Facility

2011 Commitment-to-Compliance Awards

(Awarded to 3 percent of KCIW's 2011 industrial wastewater discharge permittees)

Alaskan Copper Works - 6th Ave.

Boeing Commercial Airplane - North Field

Seattle Solid Waste - Kent Highlands Landfill

Tri-Way Industries Inc.

2011 Gold Awards

(Awarded to 49 percent of KCIW's 2011 industrial wastewater discharge permittees)

Acu-Line Corp.

Aerojet-General Corp.

Alaskan Copper Works - 6th Ave.

Amgen Corp. - Bothell

Amgen Corp. - Seattle

Art Brass Plating Inc.

B.S.B. Diversified Co. Inc.

Bayer HealthCare - Lynnwood

Black Oxide LLC

BNSF Railway Co. - Interbay Facility

Boeing Commercial Airplane - Auburn

Boeing Commercial Airplane - North Field

(Continued on page 2)

KCIW seeks voluntary solutions to reduce molybdenum

In 2006, the U.S. Environmental Protection Agency (EPA) announced its intention to establish a lower level for molybdenum in biosolids used for land application. With this in mind, KCIW has looked at identifying the sources and corrective measures necessary to reduce the quantity of molybdenum that finds its way into the collection system, focusing on the use of best management practices (BMPs).



Concentrations of regulated metals in King County biosolids are consistently below the most stringent state and federal standards for land application. The current ceiling limit established for molybdenum in land application is 75 mg/Kg (40 CFR 503.13). Based on a modified risk assessment (2001), EPA has suggested a pollutant concentration of 40 mg/Kg. Depending on EPA's final determination of the standard, molybdenum could become the most limiting factor for King County in meeting exceptional quality standards.

KCIW has identified the use of molybdate-based corrosion control chemicals as a potentially significant source of molybdenum loadings to the County's wastewater treatment plants. These chemicals are widely used throughout the county in industrial cooling towers and commercial building heating and cooling systems. The water contained and circulated in these systems typically contains residual corrosion control chemicals and is often discharged by facilities to the municipal sewer system. Discharges occur when towers periodically dispose of accumulated dissolved solids (blow-downs), or as facilities are preparing for scheduled inspection and maintenance activities.

At this time, KCIW believes that current levels of molybdenum would be better controlled through individual source management strategies and best management practices (BMPs) rather than by developing numeric pretreatment limits. This non-regulatory

(Continued on page 3)



King County honored by NACWA Environmental Achievement Awards

In February King County's commitment to outstanding environmental resource management and technical innovation was recognized by the National Association of Clean Water Agencies (NACWA) with two prestigious Environmental Achievement Awards. Department of Natural Resources and Parks Director Christie True earned NACWA's 2012 Environmental Service Award honoring individuals who have made a lasting contribution to the clean-water industry.

King County's Brightwater Treatment Plant took top honors in the 2012 Operations and Environmental Performance category. The plant began operating in September 2011 after five years of construction, and in January received an Engineering Excellence Award for 2012 from American Council of Engineering Companies (ACEC) of Washington. ACEC also honored Brightwater with a National Recognition Award.

For more information on these award-winning contributions to environmental protection and wastewater management, please visit the Department of Natural Resources and Parks or the Brightwater Treatment Plant websites (go to www.kingcounty.gov and click on "Environment.")



(AWARDS-Continued from page 1)

Boeing Commercial Airplane - Plant 2
Boeing Commercial Airplane - Renton
Boeing Electronics Center
BP West Coast Products LLC
Cedar Grove Composting Inc.
Crane-Eldec Corp.
Davis Wire Corp.
Electrofinishing Inc.
Exotic Metals Forming Co.
Foss Maritime Co.
Glacier Northwest Inc.
Hexcel Corp.
Honeywell International Inc.
Hytek Finishes Co.
Industrial Container Services
Interstate Brands Corp. - Hostess Brands
Island Spring Inc.
Kenworth Truck Co.
King County Solid Waste Division - Factoria Transfer Station
King County Solid Waste Division - Shoreline Transfer Station
King County Solid Waste Division - Vashon Transfer Station
King County Wastewater Treatment Division - Kenmore Construction Site
King's Command Foods Inc.
Marel Seattle Inc.
Mastercraft Metal Finishing Inc.
Metro Transit South Base
Mikron Industries
Pioneer Industries
Port of Seattle, Seattle-Tacoma International Airport, BW
Port of Seattle, Seattle-Tacoma International Airport, IWS
Precor Inc. - Plant 1
Precor Inc. - Plant 2
Primus International - University Swaging Division
Protective Coatings Inc.
Prototron Circuits Inc.
Rabanco Recycling Co.
Ralcorp Frozen Bakery Products
Rexam Beverage Can Co.
Romac Industries Inc.
Safeway Inc. - Bellevue Beverage Plant
Seattle Solid Waste - Kent Highlands Landfill
Skills Inc. - Auburn Facility
Smith Fabrication Inc.
Sound Transit - U230 Tunneling Capitol Hill Station Location
Sound Transit - U230 Tunneling Pine Street Location

KCIW's Industrial Waste Advisory Committee (IWAC) Feb. 1 meeting topics

- **Presentation:** Water Smart Technology Program, Arece Hampton, small business and behavior change conservation program manager, Water Smart Technology Program of the Saving Water Partnership of Seattle (See page 5).
- **KCIW Program updates, review and discussion:** Program is anticipating regional companies' and agencies' large-scale construction dewatering projects by meeting to plan the best way for them to discharge to the sewer system.
- **Industrial user workshop May 10, at the Brightwater Treatment Plant Education Center in Woodinville.**
- **2012 KCIW significant industrial users' survey:** KCIW requested ideas and suggestions as it plans a 2012 survey of those with industrial waste discharge permits.

IWAC meeting summaries and dates of upcoming meetings are posted at: www.kingcounty.gov/industrialwaste.

Stoller Metals Inc.
Terex Washington Inc. - South
Campus
Tri-Way Industries Inc.

2011 Silver Awards

*(Awarded to 15 percent
of KCIW's 2011 industrial
wastewater discharge
permittees)*

ASKO Processing Inc.
Burlington Environmental LLC -
Kent

Carl Zapffe Inc.
Darigold Inc. - Rainier Plant
GM Nameplate Inc.

Kerry Food & Beverage
King County Road Services
Division - Renton Decant
Facility

Magnetic and Penetrant
Services Co.

National Industrial Concepts
Pepsi Beverage Co. - Seattle
Facility

Redhook Brewing Co.
Seattle Department of
Transportation - Mercer
Corridor Improvements

Skills Inc. - Ballard Facility
Terex Washington Inc. - North
Campus

Tim's Cascade Snacks
Truesoups Division of H.J. Heinz
Co. LP

Vectra Fitness Inc.
Western Pneumatic Tube

Industrial Waste Advisory Committee

Terry Beals, Sound Transit
Kevin Burrell, Environmental
Coalition of

South Seattle (ECOSS)
Wendee Cook, Exotic Metals
Forming Co.

Ken Falcone, Cargill, Inc.
Donna Hoskins, Bayer
HealthCare

Mark LaFata, Aerojet-General
Tim Lew, Pepsi-Cola Beverages
Co.- Seattle

Steve Simacek, Hytek Finishes
Gail Spencer, Vigor Shipyards
Heather Trim, People for Puget
Sound

Doris Turner, Boeing Commercial
Airplane Group - Renton

Chris VanHoof, City of Kent
Scott Woerman, Landau
Associates

(REDUCING MOLYBDENUM-Continued from page 1)

strategy seeks the voluntary cooperation of businesses throughout King County. KCIW is urging industry representatives, commercial building managers and product manufacturers to independently develop BMP programs that reduce the discharge of molybdenum to the municipal sewer system including replacement of molybdate-based corrosion control chemicals with molybdate-free alternatives. For more information, see Contacts, below.

Training opportunity, save the date!

The 2011 Western Washington Regional Short School for Water and Wastewater Operators will be held June 5-6 in Lynnwood. The two-day event features concurrent tracks covering a wide variety of topics relevant to both water and wastewater operators, engineers and managers. The program will also offer a tour of King County's Brightwater Treatment Plant, June 5.



Brightwater Treatment Plant

Sponsors of the Short School are the Pacific Northwest Section, American Waterworks Association and the Western Washington Region of the Pacific Northwest Clean Water Association. For more information and to register, email jeff.lundt@kingcounty.gov.

About the Industrial Pretreatment Newsletter

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**This material is provided in alternative formats
upon request by calling 206-263-3000 or TTY relay: 711**

Congratulations to 2011 Rewards and

For the year of 2011, KCIW is honoring 64 percent of its significant industrial users with awards for maintaining excellent records of compliance with pretreatment rules and regulations. (See awards list pages 1-3.) These awards provide an incentive to facilities with approval to discharge industrial wastewater to achieve recognition for helping protect human health and enhancing the environment. Of those with industrial wastewater discharge permits in 2011, 3 percent won Commitment-to-Compliance Awards, 49 percent were awarded Gold, and 15 percent received Silver Awards. Percentages are based on the number of permits at the end of 2011.

Commitment-to-Compliance Award winners have received a Gold Award for five consecutive years. Tri-Way Industries won for the first time this year. As the years pass, facilities are becoming multiple Commitment-to-Compliance winners with Boeing Commercial Airplane - North Field and Seattle Solid Waste - Kent Highlands Landfill (City of Seattle) meeting the challenge with 15 consecutive years of Gold Awards in 2011, and Alaskan Copper Works - 6th Ave. earning its second award.

Permittees that have had no violations or late reports during the year earn a Gold Award, with winners numbering 60 this year. The eighteen 2011 Silver Award winners had no more than one late compliance report and had not exceeded a specific allowable number of self-monitoring violations based on a facility's sampling frequency.

KCIW's 2011 EnvirOvation winner is Pepsi Beverage Co. - Seattle Facility. (See story below.)

The County features information about award winners in this newsletter, on county web pages, and in media releases. Awardees will also be recognized at the KCIW workshop for industrial users, May 10.

Additional KCIW awards information is available on the program's web pages. (See page 3.)

Pepsi Beverages Co. - Seattle is 2011 EnvirOvation awardee

KCIW gives the EnvirOvation Award to companies and facilities with industrial wastewater discharge approvals within the King County sewer service area that are leaders in environmental protection. The award provides an incentive to area facilities to voluntarily go beyond regulatory obligations to manage operations in ways that help support regional efforts to help protect public health and enhance the environment.

This spring KCIW awarded Pepsi Beverages Co. - Seattle its EnvirOvation Award for significantly reducing water use. The soft drink bottling plant, which produces nearly 15 million cases of beverages annually, is permitted to discharge up to 234,000 gallons of wastewater per day. While exploring reductions in water usage is important for all manufacturing facilities, those with higher rates of water usage have the potential to reduce significant amounts.

In Pepsi Beverages Co.'s case plant personnel, aided by a consultant, worked with Seattle Public Utility's Watersmart Technology Program to analyze the plant's water usage and waste streams to find the top water conservation opportunities. The facility's analysis identified four engineering projects that could best reduce water use. As these were completed, the greatest savings came from adding a reverse osmosis filtration process to ultrafiltration water discharges. The resulting water treatment efficiency increased from 80 to 96 percent, saving the plant about nine million gallons annually.



Pepsi employee loads preforms that will become sterile bottles. Pepsi added a sterilization process that eliminated bottle rinsing and saved water.

(Continued on page 5)

Recognition program awardees!

(PEPSI AWARD-Continued from page 4)

Other water reduction projects included adding a sterilization process that eliminated bottle rinsing; upgrading the plant's cooling tower, and upgrading its water sealed vacuum pumps to dry water pumps. The water reduction resulting from all of the projects was substantial, explained Tim Lew, the Pepsi Beverages Co. - Seattle manufacturing plant director. From 2008-11 the projects reduced the annual "water to drain" in the plant by 11 million gallons. In 2010-11, the reduction was close to 50 percent.

The benefits of reducing water use are clear for Pepsi Beverages Co. and PepsiCo overall, says Lew, in that they enable the plant to "help the environment while saving the company—substantially—on water and wastewater bills."

Congratulations, Pepsi Beverages Co. - Seattle!

The Water Smart Technology program of the Saving Water Partnership of Seattle and participating local water utilities

The Saving Water Partnership is a group of local utilities that work together to provide water conservation programs in Seattle and King County

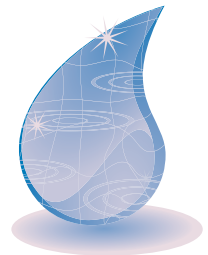
Commercial and industrial customers of water providers in the Saving Water Partnership are eligible to get financial assistance from the Water Smart Technology program to conduct technical studies and implement water conservation measures. Eligible facilities can get rebates for up to 50 percent of costs for process water improvement and other water use technologies, with incentives for other systems too. The financial assistance offered reduces the time it takes for water-saving equipment upgrades to pay for themselves, from three or more years to one to two years or less. Eligible facilities can also take advantage of conservation services, such as technical information on water-efficient technologies, onsite water audits, life-cycle cost analysis and more.

Water Smart staff can provide a number of examples of how their services have benefited manufacturing facilities. A Seattle metal finisher added new degreasing equipment that maintained proper temperatures without use of potable water that resulted in a savings of 6,000

gallons of water a day, with a Seattle Public Utilities incentive package providing 40 percent of the costs. Another facility upgraded its cooling tower control systems, enabling it to solve problems that had caused excessive sump overflows and evening out the flow of chemicals and monitors and controls for the water chemistry parameters. Another example is Pepsi Beverages Co. - Seattle, KCIW's 2011 EnvirOvation award winner.

Learn more about Water Smart:

Facilities can learn more about the program online at **www.savingwater.org/business_WSTP.htm**, including reading case studies of how property owners saved with water reduction, and to estimate how much money they could save on utility bills by instituting conservation measures. The program also offers occasional workshops. To learn more from Water Smart staff, call Seattle Public Utilities, 206-684-5883 or 206-733-9137, or email phil.paschke@seattle.gov or arece.hampton@seattle.gov.



2011 KCIW Work and Statistics

KCIW's day-to-day work

KCIW works cooperatively with more than 1,500 companies and facilities as the program:

- Regulates industrial discharges, issuing and monitoring wastewater discharge approvals;
- Provides technical assistance;
- Equitably recovers treatment and program costs from industrial users of the sewer system; and
- Monitors the regional sewerage system.

STATS!

At year's end:

- Significant Industrial Users under permit – 122
- Discharge Authorizations in effect – 306
- Active Letters of Authorization – 113

In 2011 the program:

- Conducted 415 business/facility inspections.
- Inspected about 10 percent of the 1000-plus dental offices it regulates.
- Collected more than 2,099 discrete compliance samples.
- Issued 38 companies and facilities Notices of Violation for 82 violations, with none of the violations causing NPDES exceptions at King County treatment facilities.
- Issued five fines totaling \$48,102.
- Investigated 13 reports of unusual occurrences potentially affecting the County sewer system, including its workers and treatment plants.
- King County biosolids continue to maintain exceptionally low concentrations of heavy metals, organic compounds, and pathogenic microbes. In 2011, King County Class B biosolids continued to meet the strictest standards set by the U.S. Environmental Protection Agency for recycling in land application projects.



Special initiatives

- In response to King County Code and Public Rule changes following the U.S. Environmental Protection Agency amending its Pretreatment Streamlining Rule – Program began evaluating small discharge facilities with the goal of approving new status for some.
- Characterization study – completion of sampling required in King County's NPDES permits.
- Molybdenum study – completed study in response to an EPA announcement of its intention to establish a lower level for molybdenum.
- Local limits – adopted the use of existing local limits for the new County Brightwater Treatment Plant.
- Lower Duwamish Waterway sediment remediation project – continued source control work in support of this project.

Companies Violate Wastewater Pretreatment Standards

King County's Industrial Waste Program is responsible for making sure that water used by industries returns to our waterways clean and safe. This protects our water resources, our public health, workers at treatment plants, and the biosolids produced there.

The vast majority of King County's businesses do an excellent job of meeting these clean water goals by treating their industrial wastewater before they discharge it to the sewer. Whenever possible, we work to provide technical assistance and help industries reach compliance before enforcement actions become necessary. If companies violate clean water standards, however, we do take enforcement actions.

The following companies are users of the sewer system that violated treatment requirements between July and December 2011 (or have not had their violations previously published). They were found in significant non-compliance during the reporting period; received fines; had violations that were unique or warranted special attention; or met a combination of those actions.

The following facility sends its wastewater to King County's South Treatment Plant, Renton

Puget Sound Recycling, Auburn

Nature of Violation/Type of Pollutant:	Basis for Publication:	Comment:
Discharge violations-n-Octadecane (1); Non-Polar FOG (1).	Puget Sound Recycling had a violation that warranted a fine and was significant non-compliance because it exceeded the technical review criteria, that is, during a six-month period at least 33 percent or more of all measured concentrations of n-Octadecane were in excess of the standard by a factor of 1.2 times the limit in the last six months.	Puget Sound Recycling was required to: 1) cease all discharge of wastewater to the sanitary sewer; 2) collect a representative sample of each proposed discharge prior to release; 3) test each sample as required by the permit; 4) report the results to King County for discharge approval. If the analytical results indicate that the wastewater does not meet applicable standards, the wastewater shall be held and retreated on site or hauled off-site for treatment.

Penalty: A compliance schedule, a notice of significant non-compliance, \$10,000 fine, and a \$14,650 post-violation charge.

Puget Sound Recycling, Auburn

Nature of Violation/Type of Pollutant:	Basis for Publication:	Comment:
Permit violations –1) failure to collect required monthly samples (5 counts); 2) failure to complete the requirements of a compliance schedule; and 3) failure to meet the deadlines of a compliance schedule.	Puget Sound Recycling had a violation that warranted a fine.	Puget Sound Recycling was required to: 1) cease all discharge of wastewater to the sanitary sewer immediately. To resume discharge Puget Sound Recycling shall: 1) pay in full all past due invoices issued by King County; 2) meet the conditions of previously issued compliance schedule; 3) submit revised engineering plans for the treatment processes; and 4) complete an updated operation and maintenance manual.

Penalty: A compliance schedule, an \$18,350 fine, and a \$760 post-violation charge.

The following facility sends its wastewater to King County's West Point Treatment Plant, Seattle

Avtech Corporation-Seattle

Nature of Violation/Type of Pollutant:	Basis for Publication:	Comment:
Filing a report past the final notice deadline.	Avtech Corporation had a violation that warranted a monetary penalty.	The report was filed.

Penalty: A \$500 fine.

Other Enforcement Actions: King County Industrial Waste also acted on 11 other violations at 11 companies for the following parameters: permit violations: A) discharge without authorization (1); B) discharge at an unauthorized location (1); C) discharging under an expired authorization (1); reporting-late reports (6); pH-Acidic (1); settleable solids (1).

We all need to work together to prevent pollution. If you have information for KCIW or questions about our program, please call 206-263-3000 or TTY: 711 or email info.kciw@kingcounty.gov. You may also visit our program online at www.kingcounty.gov/IndustrialWaste.



King County

Department of Natural Resources and Parks

Industrial Waste Program

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